

## Dickinson County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors

6/25/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 22 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Dickinson County economy.<sup>1</sup>

These 22 sectors have a total direct output of approximately **\$648.5 million** and support **2,423 jobs** in Dickinson County. Running the model for all 22 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Dickinson County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
Direct Effect	2423.1	24.07%	\$161,065,277	24.13%	\$648,550,200
Indirect Effect	508.5	5.05%	\$40,633,602	6.09%	\$82,820,629
Induced Effect	364.0	3.62%	\$21,088,081	3.16%	\$42,235,904
<b>Total Effect</b>	<b>3295.7</b>	<b>32.74%</b>	<b>\$222,786,960</b>	<b>33.38%</b>	<b>\$773,606,733</b>

As shown in the above table, agriculture, food, and food processing sectors support **3,296 jobs**, or **32.74%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 22 agriculture, food, and food processing sectors is approximately **\$222.8 million**, or **33.38% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **785 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Dickinson County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	785.2	\$86,469,935
Confectionery manufacturing from purchased chocolate	762.1	\$260,876,648
Farm machinery and equipment manufacturing	291.9	\$108,123,047
Wholesale trade	128.3	\$24,921,973
Grain farming	113.5	\$38,757,290
Support activities for agriculture and forestry	102.6	\$3,709,638
Truck transportation	62.3	\$9,255,060
All other crop farming	60.8	\$4,401,268
Landscape and horticultural services	55.9	\$2,649,717
Veterinary services	52.1	\$5,755,939

The confectionery manufacturing from purchased chocolate sector directly contributes approximately **\$260.9 million** to the Dickinson County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Confectionery manufacturing from purchased chocolate	762.1	\$260,876,648
Farm machinery and equipment manufacturing	291.9	\$108,123,047
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	785.2	\$86,469,935
Flour milling	42.6	\$50,666,234
Other animal food manufacturing	34.8	\$42,533,131
Grain farming	113.5	\$38,757,290
Oilseed farming	26.9	\$26,091,835
Wholesale trade	128.3	\$24,921,973
Dairy cattle and milk production	36.1	\$12,249,862
Owner-occupied dwellings	0.0	\$9,499,206

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Dickinson County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	26.9	\$26,091,835.02
Grain farming	113.5	\$38,757,289.89
Vegetable and melon farming	0.2	\$24,990.10
Fruit farming	1.3	\$94,477.35
Tree nut farming	0.6	\$80,919.70
Greenhouse, nursery, and floriculture production	0.0	\$5,304.76
All other crop farming	60.8	\$4,401,267.53
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	785.2	\$86,469,932.56
Dairy cattle and milk production	36.1	\$12,249,861.72
Poultry and egg production	0.2	\$125,757.56
Animal production, except cattle and poultry and eggs	37.2	\$4,106,377.60
Commercial logging	1.7	\$45,866.24
Commercial hunting and trapping	1.7	\$32,883.65
Support activities for agriculture and forestry	102.6	\$3,709,637.64
Other animal food manufacturing	34.8	\$42,533,130.65
Flour milling	42.6	\$50,666,233.06
Confectionery manufacturing from purchased chocolate	762.1	\$260,876,647.95
Bread and bakery product, except frozen, manufacturing	14.8	\$1,612,451.91
Frozen cakes and other pastries manufacturing	0.9	\$136,629.86
Farm machinery and equipment manufacturing	291.9	\$108,123,046.88
Veterinary services	52.1	\$5,755,938.53
Landscape and horticultural services	55.9	\$2,649,716.62

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Dickinson County, the retail sector was omitted.